

Patent
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IN THE DRAWINGS

Fig. 2 has been amended to show the elastomeric shear layer 120 with cross hatching and to show the spoke 150 as a solid extending both radially inward and transversely across from the shear layer.

Fig. 15 has been added as a new drawing to provide a perspective view of an exemplary embodiment of the present invention.

Fig. 16 has been added as a new drawing to illustrate an embodiment of the invention having the enlarged end portions on a spoke adapted to fit in an engaging slot in the wheel.

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REMARKS

Objections to the Drawings

The drawings stand objected to under 37 CFR 1.83(a) for not adequately showing the shear layer and spokes of claim 1 and the enlarged end portion and the slot of claim 4. Applicant has amended Fig. 2 and added Figs. 16 and 16 to adequately show these features of the invention. Reconsideration and withdrawal of the objection is respectfully requested.

Objections to the Specification

The specification stands objected to under 37 CFR 1.76 for failing to include a reference to the prior applications as the first sentence of the specification. Applicant has amended the specification to include, as the first sentence, a reference to the prior applications.

Because the first filing receipt shows the reference to the prior applications, Applicant is not required to file a petition under 37 CFR 1.78(a) or pay a surcharge under 37 CFR 1.17(t). Reconsideration and withdrawal of the objection is respectfully requested.

Objections to the Claims

Claim 22 stands objected to for various informalities. Applicant has amended claim 22 to include a period at the end of the claim. Reconsideration and withdrawal of the objection is respectfully requested.

Rejections under 35 U.S.C. § 112

Claims 8 and 18 stand rejected under 35 U.S.C. 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

Regarding claim 8, the Examiner has pointed out that if each web spoke is oriented parallel to the axial direction as claimed under claim 6, then mutually adjacent web spokes cannot be oriented at opposite oblique angles to the axial direction as claimed under claim 8, which depends from claim 6. Applicant has amended claim 8 to change the dependency from claim 6 to claim 7. Reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claim 18, the Examiner has pointed out that the term "essentially" is indefinite as it is not clear to what degree the inextensible cords would have to be extensible in order to be

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“essentially inextensible.” As pointed out in the MPEP § 2173.05(b), the term “essentially” was held to be definite when the specification contained guidelines and examples that were sufficient to enable a person of ordinary skill, in the cited case, “to draw a line between unavoidable impurities in starting material and essential ingredients.” *Id.*

Applicant has provided guidelines and examples within the specification so that one having ordinary skill may determine what materials are “essentially inextensible.” As Applicant has disclosed, the inextensible cords

may be of any of several materials suitable for use as tire belt reinforcements in conventional tires such as monofilaments or cords of steel, aramid or other high modulus textiles. For the illustrative tires described herein, the reinforcements are steel cords, each consisting of four wires of 0.28 mm diameter.

Specification, ¶ 48.

Because Applicant has provided guidelines and examples of materials that are “essentially inextensible,” Applicant respectfully asserts that the term “essentially inextensible” is not indefinite. Reconsideration and withdrawal of the rejection is respectfully requested.

Rejections under the nonstatutory double patenting doctrine

Claims 1, 2, 14-22 and 25-27 stand rejected under the nonstatutory double patenting doctrine as being unpatentable over claims 1, 5, 8-11 and 15 of U.S. Patent No. 6,769,465 (“the ‘465 patent”). The Examiner has determined that while the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are broader, such as claim 1, or the same, such as claims 14-22.

Applicant respectfully asserts that pending claim 1 is not broader than claim 1 of the ‘465 patent. Claim 1 of the ‘465 patent claims a tire comprising sidewalls. There are no sidewalls claimed or disclosed for the pending claimed invention. Claim 1 of the ‘465 patent does not claim spokes, which are claimed in the pending claimed invention. The sidewalls of the ‘465 patent are not claimed to extend radially inward from the reinforced annular band nor transversely across the reinforced annular band, both of which are claimed limitations of the pending claimed invention.

The Examiner states that with respect to pending claim 1, it is obvious that the web spokes are set forth in the patented claim 1 as recited as the sidewall portions. However, the

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sidewall portions are not spokes nor has the Examiner provided any evidence that one having ordinary skill in the art would consider a sidewall of a tire to be a spoke.

Furthermore, the Examiner has stated that there is no apparent reason why Applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the '465 patent. However, Applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the '465 patent because there was no disclosure therein regarding the use of spokes.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims under the nonstatutory double patenting doctrine.

Rejections under 35 U.S.C § 102(b)

Independent claims 1 and 23, as well as other claims depending therefrom, stand rejected under 102(b) as being anticipated by each of the following cited prior art references: U.S. Patent No. 811,232 of Lang, U.S. Patent No. 1,147,600 of Borland, U.S. Patent No. 1,557,437 of Dodge, U.S. Patent No. 1,414,544 of Bessler and U.S. Patent No. 1,268,078 of Lambert.

Applicant claims a structurally supported tire and wheel-tire comprising, *inter alia*, a reinforced annular band, a plurality of web spokes and means for interconnecting the spokes with a wheel. (claims 1 and 23).

MPEP § 2131 provides:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990).

Regarding the cited prior art reference of Lang, Lang discloses an inner tube 4 having supports 13 within the tube. The Examiner cites Lang for disclosing the supports 13 within the inner tube 4 as being the spokes claimed by Applicant. (Office Action, p. 8, ¶ 10). However, such is not what Applicant claims. Applicant claims spokes with means for interconnecting the

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spokes with a wheel. (Claims 1 and 23). The supports 13 disclosed by Lang are wholly within the inner tube do not interconnect with a wheel. Therefore, because Lang fails to disclose each and every element as set forth in Applicant's independent claims 1 and 23, Applicant respectfully asserts that a *prima facie* case of anticipation has not been presented. Reconsideration and withdrawal of the rejection of independent claims 1 and 23 is respectfully requested as well as for all rejected claims depending therefrom.

Regarding the cited prior art reference of Borland, Borland discloses a tire having spring spreader members 18 that force the tire flanges 19, 22 apart so that they are held securely in the rim flanges 16, 17. The Examiner cites Borland as disclosing these spreader members as spokes. (Office Action, p.8, ¶ 11). However, the spreader members disclosed by Borland are not spokes nor are the spreader members interconnected with a wheel. Therefore, because Borland fails to disclose each and every element as set forth in Applicant's independent claims 1 and 23, Applicant respectfully asserts that a *prima facie* case of anticipation has not been presented. Reconsideration and withdrawal of the rejection of independent claims 1 and 23 is respectfully requested as well as for all rejected claims depending therefrom.

Regarding the cited prior art reference of Dodge, Dodge discloses a tire having inwardly projecting ribs **H** that are secured to the inner sides **J** of the longitudinal opening **B**. (Dodge, col. 2, lines 105-107). Dodge further discloses webs or ribs **I** that are interconnected with the projected ribs **H**. *Id.* The ribs disclosed by Dodge are not spokes because the ribs or webs are secured to the inner sides of the longitudinal opening. Since Dodge fails to disclose that the ribs are interconnected to the wheel, but rather discloses that they are interconnected to the inner sides of the longitudinal opening or to each other, Dodge fails to disclose each and every element as set forth in Applicant's independent claims 1 and 23. For this reason, Applicant respectfully asserts that a *prima facie* case of anticipation has not been presented. Reconsideration and withdrawal of the rejection of independent claims 1 and 23 is respectfully requested as well as for all rejected claims depending therefrom.

Regarding the cited prior art reference of Bessler, Bessler discloses a tire having partitions 6 that form cells 2, the partitions being joined at their sides and at their outer ends to

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the body of the tire. (Bessler, col. 3, lines 1-10). The Examiner identifies the partitions as spokes. (Office Action, p. 8, ¶ 13). However, Applicant respectfully asserts that these partitions cannot be spokes because they are joined at all sides to the body of the tire. They are indeed only what Bessler discloses them as being, *i.e.* partitions.

Because Bessler fails to disclose spokes, the cited prior art fails to disclose each and every element as set forth in Applicant's independent claims 1 and 23. For this reason, Applicant respectfully asserts that a *prima facie* case of anticipation has not been presented. Reconsideration and withdrawal of the rejection of independent claims 1 and 23 is respectfully requested as well as for all rejected claims depending therefrom.

Regarding the cited prior art reference of Lambert, Lambert discloses a tire having blocks or spacers that are hollow rubber blocks 12, each stood on end and arranged preferably in an alternate or staggered relation. (Lambert, col. 1, lines 50-55). Lambert further discloses blocks or spacers 16 that are substantially non-compressible and non-elastic but flexible. (Lambert, col. 1, lines 91-97). The Examiner has defined these blocks as being identical to Applicant's claimed elastomeric shear layer. (Office Action, p. 8, ¶ 14).

Applicant respectfully asserts that the blocks or spacers 16 disclosed by Lambert cannot be an elastomeric shear layer because Lambert discloses that the blocks are *non-elastic* and *non-compressible*. For this reason, Applicant respectfully asserts that a *prima facie* case of anticipation has not been presented. Reconsideration and withdrawal of the rejection of independent claims 1 and 23 is respectfully requested as well as for all rejected claims depending therefrom.

Rejections under 103(a)

Claims 14, 15 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 811,232 of Lang. Claims 9 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 811,232 of Lang in view of Japanese patent 1-311902. Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 1,147,600 of Borland in view of U.S. Patent No. 1,101,702 of Lakoff. Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 1,811,232 of Lang in view of

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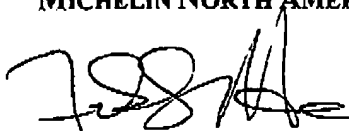
U.S. Patent No. 4,262,726 of Welter. Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 1,557,437 of Dodge in view of Pratt.

Each of these rejected claims is a dependent claim depending from independent claim 1 or 23. For the reasons provided above regarding independent claims 1 and 23, Applicant respectfully requests reconsideration and withdrawal of the rejection of these dependent claims that depend therefrom.

Applicant respectfully asserts that all claims are now in condition for allowance and requests the timely issuance of the Notice of Allowance. If the Examiner believes that a telephone interview would expedite the examination of this pending patent application, the Examiner is invited to telephone the below signed attorney at the convenience of the Examiner. In the event there are any fees or charges associated with the filing of these documents, including late filing fees, the Commissioner is authorized to charge Deposit Account No. 13-3085 for any necessary amount.

Respectfully submitted,

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